



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/082,219 | 02/26/2002 | Jinichiro Kato | 01197.022S | 2623 |

7590 10/06/2003
Finnegan, Henderson, Farabow,
Garrett & Dunner, L.L.P.
1300 I Street, N.W.
Washington, DC 20005-3315

EXAMINER

TRUONG, DUC

| | |
|----------|--------------|
| ART UNIT | PAPER NUMBER |
|----------|--------------|

1711

DATE MAILED: 10/06/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/082,219

Applicant(s)

KATO ET AL

Examiner

Duc Truong

Art Unit

1711

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 8/27/03
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 7-19 is/are pending in the application.
- 4a) Of the above claim(s) 16-19 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 7-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Art Unit: 1711

DETAILED ACTION

The reply filed on 8/27/03 is not fully responsive to the prior Office Action because of the following omission(s) or matter(s): the reply neither responds to Chem Abstract 134: 18440 over the rejection made under 35 U.S.C.102(b) (claims 7-10) nor Chem Abstract 132: 167161 over the rejection made under 35 U.S.C 103(a) (claims 11-15). See 37 CFR 1.111. Since the above-mentioned reply appears to be *bona fide*, applicant is given **ONE (1) MONTH or THIRTY (30) DAYS** from the mailing date of this notice, whichever is longer, within which to supply the omission or correction in order to avoid abandonment. EXTENSIONS OF THIS TIME PERIOD MAY BE GRANTED UNDER 37 CFR 1.136(a).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Duc Truong whose telephone number is 703-308-2437. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on 703-308-2462. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

DT



DUCTRUONG
PRIMARY EXAMINER

DETAILED ACTION

Applicant's election with traverse of Group II in Paper No. 10 is acknowledged. The traversal is on the ground(s) that the claimed process 16-19 depend on the claimed composition 7. This is not found persuasive because the composition of Group II does not require any steps of the process, as in Group III, a method of use.

The requirement is still deemed proper and is therefore made FINAL.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 7-10 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over JP 2000345431 of record on 1449 or Chem Abstract 134: 18440.

JP 2000345431 discloses a polyketone solution obtained by mixing 0.005-70% polyketone comprising an alternating copolymer of carbon monoxide with olefin such as ethylene with at least one kind zinc halide aqueous solution or an aqueous solution containing at least one kind of metal salt other than zinc halide, which is soluble at ≥ 1 wt% concentration in water at 50 C.---and the Pd content is < 100 ppm, as in the claims.

Art Unit: 1711

134: 18440 discloses a polyketone solution containing CO-olefin alternating copolymer unit and palladium in aqueous zinc halide solutions, such as a solution containing 125 CO-ethylene copolymer (I) in 65:10:25 Zn Cl₂/NaCl/H₂O with a Pd content of 37 ppm, and dissolved in an amount of not less than 1% by weight in water--- (see Abstract).

The disclosures of the references differ from the instant claims in that they do not disclose the claimed formula (I).

However, they do disclose the CO ethylene alternating copolymer under the same or similar conditions. In view of this similarity, it would appear to be inherent that a product, a polyketone of the claimed formula would be formed. See *In re Best*, 195 USPQ 430, 433 9CCPA 1977).

Claims 11-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 2000345431 or 134: 18440 in view of EP 1116 752 or 132: 167161.

JP 2000345431 or 134: 18440 discloses a polyketone solution, as stated above.

The disclosures of the references differ from the instant claims in that they do not disclose the specific aqueous solution, with the ratios, as in the claims

However, JP 2000345431 and 134: 18440 discloses the aqueous solution containing at least one kind of metal salt other than zinc halide.

EP 1116752 discloses a solution of a polyketone as a copolymer of carbon monoxide and one or more olefin units, and a solvent is an aqueous solution of at least

Art Unit: 1711

one member selected from the group consisting of zinc salts, calcium salts,

thiocyanates and iron salts.

132: 167161 discloses polyketone aqueous solutions contain a copolymer of CO with an olefin such as ethylene and a solvent which is an aqueous solution of at least one member selected from the group consisting of a Zn, Ca salt, thiocyanate, and Fe salt.

EP 1116752 or 132: 167161 provide evidence that a metal salt other than zinc halide can be calcium halide, thiocyanate and iron salt which are well known in the art in the polyketone solution.

The person of ordinary skill in the art would be motivated to form the polyketone solution, employing the Ca salt, the thiocyanate and the iron salt, as disclosed in EP 1116752 or 132: 167161, to determine the metal salt other than zinc halide, as disclosed in JP 2000345431 and in 134: 18440, in order to gain the advantages of the combination of the references, that being a polyketone aqueous solution which has the added properties that has a low toxicity, is excellent in incombustibility, spinning stability, solvent recoverability and is inexpensive (see page 2 of EP 1116752).

The determination of said metal salt other than Zinc halide in the polyketone solution composition of JP 2000345431 or 134: 18440 would not provide an unexpected results to one of ordinary skill in the art.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Duc Truong whose telephone number is 703-308-2437. The examiner can normally be reached on Monday-Friday.

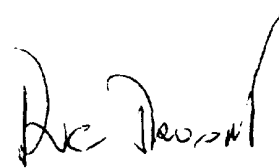
Application/Control Number: 10/082,219
Art Unit: 1711

Page 5

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on 703-308-2462. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9791 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

DT
March 21, 2003

A handwritten signature in black ink, appearing to read "Duc Truong", is written over a faint, circular official stamp.

DUCTRUONG
PRIMARY EXAMINER

Comparison between the wet spinning with the polyketone solution of the present invention (phase separation spinning) and the conventional spinning (non-phase separation method)

Appendix 1

